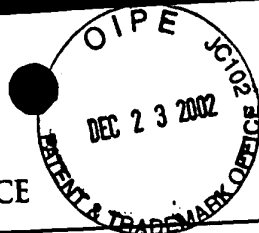




UNITED STATES  
PATENT AND  
TRADEMARK OFFICE



MAY 28, 2002

PTAS

GRAY CARY WARE & FREIDENRICH LLP  
LISA A. HAILE, J.D. PH.D.  
4365 EXECUTIVE DRIVE, SUITE 1100  
SAN DIEGO, CA 92121

Chief Information Officer  
Washington, DC 20231  
www.uspto.gov



\*102040769A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 03/13/2002

REEL/FRAME: 012734/0741  
NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
SHORT, JAY

DOC DATE: 12/20/2001

ASSIGNOR:  
MURPHY, DENNIS

DOC DATE: 12/17/2001

ASSIGNOR:  
REID, JOHN

DOC DATE: 12/18/2001

ASSIGNOR:  
MATHUR, ERIC J.

DOC DATE: 12/20/2001

ASSIGNEE:  
DIVERSA CORPORATION  
4955 DIRECTORS PLACE  
SAN DIEGO, CALIFORNIA 92121

SERIAL NUMBER: 09886400  
PATENT NUMBER:

FILING DATE: 06/20/2001  
ISSUE DATE:

012734/0741 PAGE 2

KIMBERLY WHITE, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

04-03-2002

Docket No.: DIVER1120-4

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of Conveying parties:

- a) Jay Short  
b) Dennis Murphy  
c) John Reid  
d) Eric J. Mathur

202 MAR 13 AM 10:55

FINANCE SECTION

3-13-02

Additional name(s) of conveying party(ies)  
attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of name  
☐ Other

Execution Dates: a) December 20, 2001; b) December 17, 2001 ; c)  
December 18, 2001; e) December 20, 2001

## 2. Name and address of receiving Party(ies)

Name: DIVERSA CORPORATION

Internal Address: \_\_\_\_\_

Street Address: 4955 DIRECTORS PLACECity: SAN DIEGO State: CA Zip: 92121Additional name(s) & address(es) attached?  
☐ Yes ☒ No

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s) 09/886,400

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Lisa A. Haile, J.D., Ph.D.  
GRAY CARY WARE & FREIDENRICH LLPStreet Address: 4365 Executive Drive, Suite 1100City: San Diego State: CA Zip: 921216. Total number of Applications and patents involved: 17. Total fee (37 CFR 3.41) \$ 40.00

☒ Enclosed - Check No.: 500714  
☒ Authorized to charge any underpayment to  
deposit account.

8. ☒ Deposit Account No.: 50-1355

DO NOT USE THIS SPACE

## 9. Statement and signature:

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy  
of the original document.

Lisa A. Haile, J.D., Ph.D.Name of Person Signing  
Registration No.: 38,347

Signature

March 6, 2002  
DateTotal number of pages including cover sheet, attachments, and document: SIX

ASSIGNMENT  
(BY INVENTOR(S))

This assignment ("Assignment") is made by Jay Short, of Rancho Santa Fe California, Dennis Murphy, of Malvern, Pennsylvania, John Reid, of Ardmore, Pennsylvania and Eric Mathur, of Carlsbad, California (collectively, the "Assignors") to DIVERSA CORPORATION, a Delaware corporation ("Assignee"), having a place of business at 4955 Directors Place; San Diego, California 92121.

Recitals

A. Each of the Assignors has invented a new and useful invention entitled **ENZYMES HAVING ALPHA-GALACTOSIDASE ACTIVITY AND METHODS OF USE THEREOF** for which an application for United States Letters Patent was filed on JUNE 20, 2001 in the United States Patent and Trademark Office.

B. Each of the Assignors authorizes and requests insertion of the serial number of the application when officially known:

The United States Application Serial No. 09/886,400.

C. Each of the Assignors believes the Assignors to be the original, first and joint inventors of the invention disclosed and/or claimed in the application for Letters Patent.

D. The parties desire to have a recordable instrument assigning from the Assignors to the Assignee the entire rights, title and interest in and to the invention, the application and all Letters Patent in the United States and throughout the world that may be granted or issued for the invention or that derive a right of priority from the application (including, without limitation, all divisional, continuation, continuation-in-part and continued prosecution applications thereof, and all reissues and reexaminations thereof, and all foreign counterparts thereof) (collectively, the "Invention Patents").

Agreement

NOW, THEREFORE, in accordance with the obligations to assign the Invention Patents and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each of the Assignors agrees to the foregoing and as follows:

1. Each of the Assignors does and will sell, assign and transfer to Assignee, such Assignor's entire rights, title, and interest in and to each of the Invention Patents, including, without limitation, the rights to file foreign applications directly in the name of the Assignee and to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties, or otherwise.
2. Each of the Assignors agrees that, upon request and without further compensation, but at no expense to such Assignor, such Assignor and such Assignor's legal representatives and assigns will do all lawful acts, including the execution of papers and the giving of testimony, that may be necessary or desirable for obtaining, sustaining, reissuing, or enforcing each of the Invention Patents in the United States and throughout the world, and for perfecting, recording, or maintaining the title of Assignee, and Assignee's successors and assigns, in and to each of the Invention Patents in the United States and throughout the world. In the event that Assignee is unable for any reason to secure any of the Assignors' signatures to any document that may be necessary or desirable for obtaining, sustaining, reissuing, or enforcing each of the Invention Patents in the United States and throughout the world, or for perfecting, recording, or maintaining the title of Assignee, and Assignee's successors and assigns, in and to each of the Invention Patents in the United States and throughout the world, each such Assignor hereby irrevocably designates and appoints Assignee and Assignee's duly authorized officers and agents as such Assignor's agents and attorneys-in-fact to act for and on such Assignor's behalf and instead of such Assignor to execute such document, all with the same legal force and effect as if executed by such Assignor.

3. Each of the Assignors represents and warrants that such Assignor has not granted and will not grant to others either (1) any rights, title or interest in and to any of the Invention Patents, or (2) any rights inconsistent with the rights granted herein.

4. Each of the Assignors authorizes and requests the Assistant Commissioner for Patents of the United States and the various counterparts thereof throughout the world to issue and/or grant any Letters Patent granted for each of the Invention Patents to Assignee, its successors and assigns, as the assignee of the entire interest in such Invention Patents.

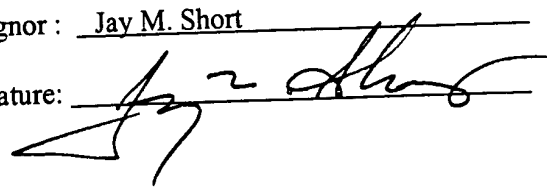
5. This Assignment constitutes the entire agreement with respect to its subject matter and supersedes all prior or contemporaneous oral or written agreements concerning such subject matter. No waiver, amendment, or modification of this Agreement shall be effective against the Assignee, unless in writing executed by a duly authorized representative of the Assignee. This Agreement shall be governed in all respects by the laws of the United States of America and by the laws of the state/province of California, as such laws are applied to agreements entered into and to be performed entirely within California between California residents. Each of the parties irrevocably consents to the exclusive personal jurisdiction of the federal and state courts located in California, as applicable, for any matter arising out of or relating to this Assignment, except that in any action seeking to enforce any order or any judgment of such federal or state courts located in California, such personal jurisdiction shall be nonexclusive. A breach of any of the promises or agreements contained herein will result in irreparable and continuing damage to Assignee for which there will be no adequate remedy at law, and Assignee shall be entitled to injunctive relief and/or a decree of specific performance, and such other relief as may be proper.

IN WITNESS WHEREOF, each of the Assignors has executed this  
Assignment on the date(s) provided below.

1.

Date: 12/20/01

Assignor: Jay M. Short

Signature: 

2.

Date: \_\_\_\_\_

Assignor: Dennis Murphy

Signature: \_\_\_\_\_

3.

Date: \_\_\_\_\_

Assignor: John Reid

Signature: \_\_\_\_\_

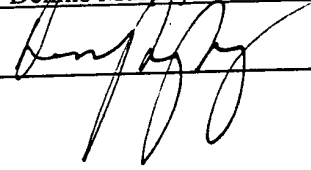
4.

Date: 12/20/01

Assignor: Eric J. Mathur

Signature: 

IN WITNESS WHEREOF, each of the Assignors has executed this  
Assignment on the date(s) provided below.

1. Assignor : Jay M. Short  
Date: \_\_\_\_\_ Signature: \_\_\_\_\_
2. Assignor : Dennis Murphy  
Date: Dec 17, 2001 Signature: 
3. Assignor : John Reid  
Date: \_\_\_\_\_ Signature: \_\_\_\_\_
4. Assignor : Eric J. Mathur  
Date: \_\_\_\_\_ Signature: \_\_\_\_\_



IN WITNESS WHEREOF, each of the Assignors has executed this  
Assignment on the date(s) provided below.

1. Assignor : Jay M. Short

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

2. Assignor : Dennis Murphy

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

3. Assignor : John Reid

Date: Dec. 18, 2001 Signature: John Reid

4. Assignor : Eric J. Mathur

Date: \_\_\_\_\_ Signature: \_\_\_\_\_